Mat Troubleshooting Guide

Mat Tearing- Full Width of Mat

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Excessive Speed	1) Correct at machine
2) Unstable mix (temp., aggregate, etc.)	2) Correct at plant
3) Screed lift not fully extended	3) Extend lift
4) Screed lift not released	4) Release lift
5) Screed plate worn out	5) Replace
6) Cold Screed	6) Check burners-review heating procedures
7) Paving thinner than largest aggregate	7) Correct at plant
8) Material too cold	8) Correct at plant
9) Excessive moisture in mix	9) Correct at plant
10) Strike-off too low	10) Raise strike-off

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
11) Strike-off too low or in low position	11) Adjust
12) Strike-off too high or in high position	12) Adjust
13) Pre-strike off too low	13) Adjust
14) Vibrator running too slow	14) Increase Vibration

Mat Tearing-Center (Before Rolling)

FOR ALL SCREEDS:

POSSIBLE CAUSE:	CURE:
1) Not enough lead crown	1) Adjust as needed
2) Flow gates closed down too far	2) Adjust gates
3) Worn screed plate	3) Replace screed plate
4) Kick back on augers worn off	4) Replace or repair
5) Segregation in mix	5) Check hauling & Dumping procedure & plant operation
6) Cold screed	6) Check burners- review heating procedures

FOR TAMPER SCREEDS:

POSSIBLE CAUSE:	CURE:
7) Tamper bars worn out	7) Replace
8) Tampers set too high or low	8) Adjust correctly

FOR VIBRATORY SCREEDS:

POSSIBLE CAUSE:	CURE:
9) Strike-off too low or in low position	9) Adjust
10) Strike-off too high	10) Adjust
11) Pre-strike off too low	11) Adjust

Mat Tearing- Quarter Points

FOR ALL SCREEDS

POSSIBLE CAUSE	Cure
1) Cold Screed	1) Check burners-review heating procedures
2) Overloaded Augers	2) Machine adjustment a. Auger speed b. Flow gates
3) Cold material	3) Correct at plant
4) Aggregate thicker than mat	4) Check mat depth or correct at plant
5) Extensions incorrectly installed	5) See machine operator's manual
6) Auger worn out	6) Replace augers

FOR TAMPER SCREEDS

POSSIBLE CAUSE:	CURE
7) Tamper bars worn out	7) Replace
8) Tampers set too high or low	8) Adjust correctly

Mat Tearing- Edges

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) End plate not square	1) Adjust as needed
2) Cold material build-up at end of augers	2) Extend augers
3) Extensions installed incorrectly	3) Reinstall extensions
4) Flow gates closed down too far	4) Adjust gates

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
5) Tamper bars worn out	5) Replace
6) Tampers set too high or low	6) Adjust correctly

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
7) Pre-strike off too low	7) Adjust

Material Tearing- Outside (Before Rolling)

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Too much lead crown	1) Adjust
2) Cold screed	2) Check burner- review heating procedures
3) Flow gates open too high	3) Adjust gates
4) Paving thinner than largest aggregate	4) Check mat depth or correct at plant
5) Extensions installed incorrectly	5) Reinstall extensions
6) Cold material building up at end of augers	6) Extend augers

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
7) Tampers bars worn out	7) Replace
8) Tampers set too high or low	8) Adjust correctly

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
9) Strike-off too low or in low position	9) Adjust
10) Strike-off too high or in high position	10) Adjust
11) Pre-strike off too low	11) Adjust

Mat Tearing- Behind Main Screed with Extensions Retracted

PAVERS WITH POWER SCREED EXTENSIONS

POSSIBLE CAUSE	CURE
1) Extensions too low in front of main screed	1) Adjust up

Loose Streak in Center of Mat

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Insufficient lead crown	1) Adjust as needed
2) Worn augers or kickback paddles	2) Repair or replace
3) Flow gates too low	3) Adjust as needed
4) Augers worn out	4) Replace augers

Screed Rises at Each Take Off

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Overloaded augers	1) Train operator
2) Augers worn out	2) Repair or replace augers
3) Waiting too long between loads	3) Inform operator to adjust paver speed
4) Varying mix temperatures	4) Inform plant and truck drivers
5) Grade sensor mounted at tow point	5) Move back on side arm

VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
6) Strike off too high or in high position	6) Adjust

Screed Marks

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Trucks bumping paver	1) Train drivers
2) Waiting too long between loads	2) Inform operator to adjust paver speed
3) Screed lift not fully extended	3) Extend lift
4) Screed lift not released	4) Release lift
5) Fluctuating head of material	5) Check paddle box locations, flow gate openings & speed of augers & conveyors
6) Cold screed	6) Review/check screed heaters & heating procedures.

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
7) Strike-off too low or in low position	7) Adjust
8) Pre-strike off too low	8) Adjust

Poor Surface Texture

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Fluctuating head of material	1) Check paddle box locations, flow gate openings, & speed of augers & conveyors
2) Augers overloaded	2) Review operational procedures
3) Extensions installed incorrectly	3) Reinstall extensions
4) Trucks holding brakes	4) Train drivers
5) Cold material	5) Correct at plant
6) Excessive moisture in mix	6) Correct at plant
7) Excessive speed	7) Review correct procedures
8) Temperature of mix varying	8) Correct at plant
9) Worn screed plate	9) Replace screed plate
10) Worn augers	10) Repair or replace augers

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
11) Tamper bars worn out	11) Replace

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
12) Strike-off too low or in low position	12) Adjust
13) Strike-off too high or in high position	13) Adjust
14) Pre-strike off too low	14) Adjust
15) Vibrator running too slow	15) Increase vibration at vibrator control and/or reposition & coordinate eccentric weights

Fluctuating Mat Texture

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Fluctuating head of material	1) Check paddle box locations, flow gate openings & speed of augers & conveyors
2) Augers overloaded	2) Review operational procedures
3) Waiting too long between loads	3) Inform operator to adjust paver speed
4) Paving thinner than largest aggregate	4) Check mat depth or correct at plant
5) Extensions installed incorrectly	5) Reinstall extensions
6) Worn screed plate	6) Replace screed plate
7) Running hopper empty between loads	7) Train operator & adjust paver speed
8) Trucks holding brakes	8) Train drivers
9) Worn augers	9) Repair or replace
10) Cold screed	10) Review/check screed heaters & heating procedures
11) Cold material	11) Correct at plant
12) Segregation in mix	12) Check hauling & dumping procedure & plant operation

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
13) Tamper bars worn out	13) Replace
14) Tampers not running at full RPM	14) Increase tamper speed
15) Tampers not timed	15) Correct
16) Tampers set too high or low	16) Adjust correctly
17) Material hardened around tamper bars	17) Clean tamper bars

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
18) Strike-off too low or in low position	18) Adjust
19) Strike-off too high or in high position	19) Adjust
20) Pre-strike off too low	20) Adjust

Transition Lines Between Screed & Extensions

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Extensions set too high or low	1) Adjust height of extensions

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Voids In Extension Area

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Extension starved for material	1) Install additional augers & guards for constant extended width- Use kick-out paddles for variable extended widths

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Bright Streak Down Center of Mat

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Too much lead crown	1) Make necessary adjustment
2) Flow gates too high	2) Adjust as needed
3) Augers worn out	3) Repair or replace

Auger Shadows

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Overloaded augers	1) Review operational procedures
2) Flow gates too high	2) Adjust as needed
3) Worn augers	3) Repair or replace augers
4) Segregation in mix	4) Check hauling & dumping procedure & plant operation

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Ripples

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Fluctuating head of material	1) Check machine adjustments check material for inconsistency
2) Augers overloaded	2) Review operational procedures
3) Electronic control hunting	3) Check electronic controls
4) Flow gates open too high	4) Adjust as needed
5) Speed in excess	5) Adjust paver speeds
6) Loose or worn depth crank assembly	6) Repair, tighten or replace
7) Roller in poor mechanical condition	7) Repair or replace roller
8) Worn augers	8) Repair or replace
9) Unstable mix	9) Correct at plant
10) Too much lead crown	10) Adjust screed
11) Not enough lead crown	11) Adjust screed
12) Trucks holding brakes	12) Train drivers
13) Screed lift not fully extended	13) Extend lift
14) Screed lift not released	14) Release lift
15) Temperature of mix varying	15) Correct at plant

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
16) Tamper bars worn out	16) Replace
17) Tampers not running at full RPM	17) Increase tamper speed
18) Tampers not timed	18) Correct
19) Material hardened around tamper bars	19) Clean tamper bars

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
20) Strike-off too low or in low position	20) Adjust
21) Strike-off too high or in high position	21) Adjust
22) Pre-strike off too low	22) Adjust

Wavy Surface- Long

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Running hopper empty between loads	1) Train operator & adjust paver speed
2) Fluctuating head of material	2) Check machine adjustments, check material for inconsistency
3) Augers overloaded	3) Review operational procedures
4) Temperature of mix varying	4) Correct at plant
5) Screed lift not fully	5) Extend lift
6) Screed lift not released	6) Release lift
7) Over-correction of depth cranks	7) Review correct procedures
8) Worn augers	8) Repair or replace
9) Flow gates closed down too far	9) Adjust gates
10) Segregation in mix	10) Check hauling & dumping procedure & plant operation
11) Waiting too long between loads	11) Inform operator to adjust paver speeds

Wavy Surface- Short

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Electronic control hunting	1) Check electronic controls
2) Fluctuating head of material	2) Check machine adjustments check material for inconsistency
3) Augers overloaded	3) Review operational procedures
4) Temperature of mix varying	4) Correct at plant
5) Flow gates closed down too far	5) Adjust gates
6) Unstable mix	6) Correct at plant
7) Trucks holding brakes	7) Train drivers
8) Loose or worn depth crank assembly	8) Repair, tighten, or replace
9) Worn augers	9) Repair or replace
10) Segregation in mix	10) Check hauling & dumping procedure & plant operation
11) Roller in poor mechanical condition	11) Repair or replace roller

Hair Line Cracks

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Poor rolling procedures	1) Check roller manufacturer recommendations
2) Augers overloaded	2) Review operational procedures
3) Excessive moisture in mix	3) Correct at plant
4) Fluctuating head of material	4) Review correct procedures
5) Excessive speed	5) Review correct procedures
6) Unstable mix	6) Correct at plant

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
7) Tamper bars worn out	7) Replace
8) Tampers not running at full RPM	8) Increase tamper speed
9) Tampers not timed	9) Correct
10) Material hardened around tamper bars	10) Clean tamper bars

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
11) Strike-off too low or in low position	11) Adjust
12) Strike-off too high or in high position	12) Adjust
13) Pre-strike off too low	13) Adjust

Poor Longitudinal Joints

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Delay in rolling	1) Improve coordination
2) Over-correction of depth cranks	2) Review correct procedures
3) Overloaded augers	3) Review correct procedures
4) End plate not square	4) Adjust as needed
5) Head of material varying	5) Correct machine operation or adjustment
6) Overlapping joint too much	6) Review correct procedures

Poor Transverse Joints

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Incorrect milling procedure	1) See machine manual for recommended procedure
2) Over-correction of depth cranks	2) Review correct procedures
3) Poor rolling operation	3) Review correct procedures
4) Augers overloaded	4) Review correct procedures
5) Screed lift not fully extended	5) Extend lift
6) Screed lift not released	6) Release lift
7) Varying mix temperature	7) Correct at plant
8) Cold Screed	8) Check screed heaters & review heating procedures
9) Not rolling joint soon enough	9) Review correct procedures
10) Material too cold	10) Correct at plant
11) Incorrect joint preparation	11) Review recommended procedures
12) Fluctuating head of material	12) Check machine adjustments check for inconsistencie material

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Bleeding

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Excessive moisture in mix	1) Correct at plant
2) Poor rolling operation	2) Review correct procedures
3) Excessive tack coat	3) Correct tack application

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
4) Tampers too low	4) Adjust tampers

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
5) Vibrator running too fast	5) Reduce vibration
6) Eccentric weights set incorrectly	6) Reset
7) Strike-off too low or in low position	7) Adjust
8) Strike-off too high or in high position	8) Adjust
9) Pre-strike off too low	9) Adjust

Screed Rides Nose Down

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Screed depth crank improperly set	1) Adjust for correct angle of attack
2) Screed depth crank bearings badly worn	2) Replace bearings
3) Forward area of screed plate badly worn	3) Replace screed plate

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
4) Strike-off too high or in high position	4) Adjust
5) Pre-strike off set too high	5) Make adjustment as outlined in machine operators manual

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Unable to Control Screed

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Screed lift not fully extended	1) Extend lift
2) Screed lift not released	2) Release lift
3) Cold screed	3) Check screed heaters & review heating procedures
4) Paving thinner than largest aggregate	4) Check mat depth or correct at plant
5) Unstable mix	5) Correct at plant
6) Loose or worn depth crank assembly	6) Repair, tighten or replace

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
7) Strike off too high or in high position	7) Adjust
8) Pre-strike off set too high	8) Make adjustment as outlined in machine operators manual

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Pushing Under Roller

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Poor roller operation	1) Review rolling procedures
2) Unstable mix	2) Correct at plant

FOR TAMPER SCREEDS

POSSIBLE CAUSE	CURE
3) Tampers not running at full RPM	3) Increase tamper speed
4) Tampers not timed	4) Correct
5) Material hardened around tamper bars	5) Clean tamper bars

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
6) Pre-strike off too low	6) Adjust

Unsatisfactory Compaction

FOR ALL SCREEDS

POSSIBLE CAUSE	CURE
1) Poor roller operation	1) Review rolling procedures

FOR VIBRATORY SCREEDS

POSSIBLE CAUSE	CURE
2) Vibrator running too slow	2) Increase vibration
3) Eccentric weights set incorrectly	3) Adjust